UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

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SUBJECT: RCRA Review of L.E. Carpenter Site Feasibility Study Report

FROM: Andrew Bellina, P.E.
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TO: Raymond Basso, Chief
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The L.E. Carpenter facility was involved in the production of vinyl wall coverings. Waste solvents, including xylene and methyl ethyl ketone, along with particulate matter from dust collectors, was generated by the facility. In accordance with discussions with the CERCLA project manager, spent solvents were released into the surrounding soil and groundwater. From 1963 until 1970, the facility disposed of waste materials along with a polyvinyl chloride (PVC) waste material, into an unlined on-site surface impoundment.

Contaminants detected in soils at the site include diethyl-hexylphthalate (DEHP), ethylbenzene, xylene, lead, antimony and PCBs (<50ppm). VOCs and BN compounds were found in the groundwater consistent with soil contamination. Contaminants of concern (COC) for groundwater include DEHP, xylene, and ethylbenzene. COCs for soil include DEHP, lead, antimony and PCBs. The recommended alternatives for remediation of the site include soil cover for DEHP contaminated soils, excavation, floating layer recovery, and groundwater treatment followed by surface water discharge. Enhanced biological treatment of extracted groundwater followed by using the treated groundwater for soil flushing is also being considered as an option. The addition of surfactants and nutrients to enhance the soil flushing and biodegradation process is being considered as part of this alternative. RCRA standards pertaining to the recommended alternative are as follows:

1) Due to the presence of spent solvents in the soil and groundwater, RCRA Subpart X standards are applicable to the soil flushing/biological treatment system being proposed for treating the soil and groundwater. These standards are meant to ensure that the system is operated in a manner that protects human health and the environment.

2) Due to the presence of RCRA listed spent solvents and/or toxicity characteristic compounds above the threshold limit, RCRA Subpart N landfill and Subpart G closure standards are applicable to the soil cover for DEHP contaminated soils. The cover should be designed to accommodate settling and subsidence and have a permeability less than or equal to the permeability of the liner or natural sub-soils present. In order to meet these performance specifications, guidance for the design of a final cover is available from the EPA guidance document entitled "Landfill Design, Liner Systems and Final Cover," dated July 1982.

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3) RCRA Land Disposal Restrictions (LDR) may be applicable to the disposal of displaced soil, floating product layer, or groundwater depending upon whether hazardous waste is present in these media. Treatment of the contaminated media should ensure levels of contaminants are below RCRA Land Disposal Restriction Best Demonstrated Available Technology (BDAT) standards listed in 40 CFR 268.43.

4) In accordance with OSWER Directive 9234.1-06, health-based drinking water standards (MCLs) take precedence over Best Demonstrated Available Technology standards listed in the RCRA Land Disposal Restrictions (40 CFR Part 268) when determining applicable treatment standards to groundwater being reinjected. RCRA standards may be applicable to the sludge derived from treatment of the groundwater. As such, sludge derived from treatment of the groundwater should be tested using TCLP. The sludge should be sent to a facility in compliance with OSWER Off-Site Policy Directive Number 9834.11 if found to be hazardous.

5) RCRA Part 263 standards are applicable to the shipment off-site of hazardous materials for disposal. Part 263 standards specify manifesting procedures, transport and record keeping requirements. The material should be sent to a facility in compliance with OSWER Off-Site Policy Directive Number 9834.11.

Please contact Mike Kramer at X8654 if you have any questions concerning this memorandum.